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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

FAN, CHIEH M

ART UNIT	PAPER NUMBER
2634	6

DATE MAILED: 04/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/513,962

Applicant(s)

MCDERMOTT ET AL.

Examiner

Chieh M Fan

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-8 and 14-20 is/are allowed.
- 6) ☒ Claim(s) 1 and 9-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 1/30/04 have been fully considered but they are not persuasive.

Regarding claims 1, 11 and 13, the applicants argue that the Kamgar reference teaches a receiver uses a delay-lock-loop to track the code of the selected transmitter. Since Kamgar's transmitter code-phase and receiver are set to the same code-phase, Kamgar cannot be said to teach a transmitter code-phase that is independent of the receiver (see page 13 of the amendment).

Examiner's response --- Kamgar teaches that each transmitter is assigned a unique code phase so as to be distinguishable by the receiver. However, it is known the unique code phase is predetermined and set at the stage of system design and planning. Kamgar never teaches that the receiver, based on its current code phase, sends a control signal to each transmitter to control or change the code phase of each transmitter. The transmitter code phase is not controlled by the receiver and therefore is clearly independent of the receiver. Next, in response to the argument that *Kamgar sets the receiver code phase to be substantially equal to the transmitter and therefore Kamgar cannot be said to teach a transmitter code phase that is independent of the receiver*, one can at most say the receiver code phase is dependent on the selected transmitter code phase from such teaching. One cannot say the transmitter code phase

Art Unit: 2634

is dependent on the receiver code phase, because Kamgar never teaches setting the transmitter code phase (using, e.g. a delay -locked loop DLL or a phase-locked loop PLL) to be substantially equal to the receiver code phase.

Furthermore, the applicants apparently argue that the transmitter code phase is not independent of the receiver code phase because the code phases of the receiver and the transmitter are synchronized. The examiner disagrees. It is well known that, in order for demodulating to occur successfully, the transmitter's and the receiver's code phases must be synchronized (col. 1, lines 49-51 of Kamgar). The present application is not exceptional. The present application scans through a plurality of code phases at the receiver. For each code phase, the energy of the despread signal is compared to a threshold to determine whether this particular code phase is synchronized, i.e. in phase, with a transmitter (see page 8, lines 6-8 and page 9, lines 15-20 of the specification). That is, in order to demodulate the message transmitted from a particular transmitter, the receiver still needs to be in-phased with that particular transmitter. Therefore, although the present application does not use a PLL or DLL, the present application still essentially synchronizes the codes phases of the receiver and the transmitter. If Kamgar cannot be said to teach a transmitter code phase that is independent of the receiver, the present application cannot be said to teach a transmitter code phase that is independent of the receiver, either.

Based on the reasons above, the argument is not persuasive. The rejection is maintained.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "the delay means" in line 2. There is insufficient antecedent basis for this limitation in the claim. It appears that claim 10 should depend on claim 2.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 11 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Kamgar et al. (U.S. Patent No. 6,205,167, "Kamgar" hereinafter).

Regarding claim 1, Kamgar discloses a communications system, i.e., a CDMA system, for receiving a plurality of messages from a plurality of transmitters, comprising:

a receiver that is configured to receive a composite signal that comprises the plurality of messages from the plurality of transmitters, each message having a transmitter code-phase relative to a code-phase of the receiver, each transmitter code-phase being independent of the code-phase of the receiver (col. 1, lines 33-36 and 39-41), and

a message discriminator that is configured to discriminate at least one message from the plurality of messages based on the transmitter code-phase corresponding to the at least one message (col. 1, lines 39-54).

Regarding claim 11, Kamgar discloses a communications system, i.e., a CDMA system, comprising:

a plurality of transmitters that are configured red to communicate messages to a receiver, each transmitter of the plurality of transmitters being configured to operate substantially autonomously, and independent of the receiver, and each transmitter being configured to communicate its message to the receiver using substantially identical transmission parameters as each other transmitter, including using a common spreading-code within a common communications channel (col. 1, lines 31-38), and

wherein each message has an associated code-phase that is independent of the receiver, and independent of each other message, thereby facilitating a discrimination of the messages at the receiver based on different code-phases associated with different messages (col. 1, lines 39-54, also note that the unique phase offset associated with

each transmitter is independent of the receiver because the receiver never sends a control signal to control the phase offset).

Regarding claim 13, Kamgar teaches a method of communication comprising:
receiving a composite signal that comprises a plurality of messages from a plurality of transmitters, each message having a transmitter code-phase relative to a code-phase of the receiver, each transmitter code-phase being independent of the code-phase of the receiver (col. 1, lines 33-36 and 39-41), and

discriminating at least one message from the plurality of messages based on the transmitter code-phase corresponding to the at least one message (col. 1, lines 39-54).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamgar et al. (U.S. Patent No. 6,205,167, "Kamgar" hereinafter) in view of Gilhousen et al. (U.S. Patent No. 4,901,307, "Gilhousen" hereinafter).

Kamgar teaches the claimed invention (see the rationale applied to claim 1 above) except a satellite between the transmitters and the receiver.

Gilhousen teaches a communication system employing a satellite-based repeater to provide communication links among a large number of mobile or fixed, and local or remote users (col. 8, lines 12-15). Gilhousen also teaches that satellite systems are required to economically provide service to low density, rural or remote areas (col. 3, lines 46-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a satellite to provide the composite signal to the receiver so as to economically provide CDMA service to low density, rural or remote areas.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamgar et al. (U.S. Patent No. 6,205,167, "Kamgar" hereinafter) in view of Secord et al. (U.S. Patent No. 6,373,831, "Secord" hereinafter).

Kamgar teaches the claimed invention (see the rationale applied to claim 1 above) including an encoder (see 114 or 116 in Fig. 1) for encoding the message before spreading and transmitting the message, but does not specifically teach that the encoder is an error correction encoder.

However, the use of an error correction code is well known in the art to improve the quality and reliability of communication. Secord teaches a CDMA system comprises an error correction encoder (10 in Fig. 1) to encode the message before spreading and transmitting the message. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the error correction encoder of

Second in place of the encoder of Kamgar, so as to improve the quality and reliability of communication.

Allowable Subject Matter

9. Claims 2-8 and 14-20 allowed.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chieh M Fan whose telephone number is (703) 305-

Art Unit: 2634

0198. The examiner can normally be reached on Monday-Friday 8:00AM-5:30PM,
Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (703) 305-4714. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



Chieh M Fan
Primary Examiner
Art Unit 2634

cmf
April 7, 2004